

Igor Touzov 34185

Method of alignment for precision tools

10/710,435

January 24, 2006

Reference: Application 10/710,435

Subject: response to action letter sent on 10/25/2005

Date mailed: 1/24/2006

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To: Meagan S. Walling  
Art Unit 2863

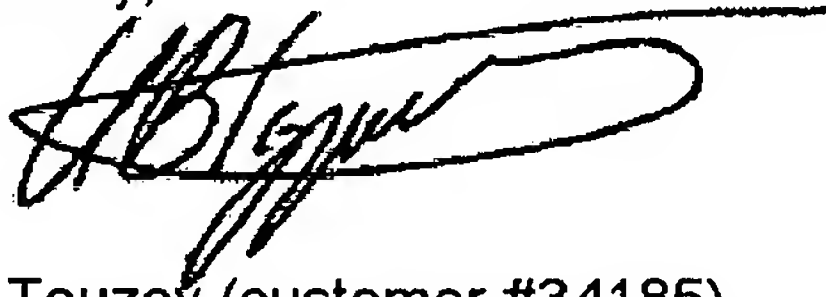
Dear Meagan,

In response to your communication from 10/25/2005 I have taken into account ambiguity of term **inclination** as it might be treated as a "**preference**", although its primary meaning of **angle between two planes** was intended.

Cited reference of US2004/0262020 teaches no method of how to utilize tilt angles to refine positions of two entities, especially when these angles are much smaller than  $90^\circ$ . This  $90^\circ$  angle is implicitly fixed in cited reference as author refers to X and Y motions. Further more in par. 30 he teaches that z-axis normal to the plane of the x-axis. This assumption is extended through whole document. Although in practice thermal variation caused by motors of his design produce sort term temperature disturbances of the work piece on range of parts of degree, that is sufficient (considering relative sizes on drawing) to induce unaccounted inclinations on range of 0.1-2 degree. These inclinations in turn cause lateral displacements on range 20 to 1000 nm. Author does not refer to such errors nor teaches how to measure or compensate them.

Claim 1 of my invention is now amended to eliminate unintentional ambiguity. Claims 2&4 are amended to exclude ambiguous reference on text of the invention.

Respectfully,



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